

PCT REQUEST

2980338PC/nu

Original (for SUBMISSION) - printed on 01.10.1999 10:21:09 AM

0 0-1	For receiving Office use only International Application No.	PCT/FI 99 / 0 0 8 13
0-2	International Filing Date	01 OCT 1999 (01.10.99)
0-3	Name of receiving Office and "PCT International Application"	The Finnish Patent Office PCT International Application
0-4 0-4-1	Form - PCT/RO/101 PCT Request Prepared using	PCT-EASY Version 2.84 (updated 01.07.1999)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	National Board of Patents and Registration (Finland) (RO/FI)
0-7	Applicant's or agent's file reference	2980338PC/nu
I	Title of invention	METHOD OF DETERMINING HOME AREA FOR SUBSCRIBER TERMINAL
II II-1 II-2 II-4 II-5	Applicant This person is: Applicant for Name Address:	applicant only all designated States except US NOKIA NETWORKS OY Keilalahdentie 4 FIN-02150 Espoo Finland
II-6 II-7	State of nationality State of residence	FI FI
III-1 III-1-1 III-1-2 III-1-4 III-1-5	Applicant and/or inventor This person is: Applicant for Name (LAST, First) Address:	applicant and inventor US only AHOLA, Ossi Eteläntie 33 FIN-39200 Kyröskoski Finland
III-1-6 III-1-7	State of nationality State of residence	FI FI

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III-2	Applicant and/or inventor	
III-2-1	This person is:	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First) -	PELTOLA, Marjo
III-2-5	Address:	Isoniemenkatu 24 FIN-33400 Tampere Finland
III-2-6	State of nationality	FI
III-2-7	State of residence	FI
III-3	Applicant and/or inventor	
III-3-1	This person is:	applicant and inventor
III-3-2	Applicant for	US only
III-3-4	Name (LAST, First)	SUONVIERI, Jukka
III-3-5	Address:	Jenseninkatu 27 B 6 FIN-33610 Tampere Finland
III-3-6	State of nationality	FI
III-3-7	State of residence	FI
III-4	Applicant and/or inventor	
III-4-1	This person is:	applicant and inventor
III-4-2	Applicant for	US only
III-4-4	Name (LAST, First)	TUSA, Kai
III-4-5	Address:	Elinantie 11 FIN-33950 Pirkkala Finland
III-4-6	State of nationality	FI
III-4-7	State of residence	FI
IV-1	Agent or common representative; or address for correspondence	
	The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name	KOLSTER OY AB
IV-1-2	Address:	Iso Roobertinkatu 23 P.O. Box 148 FIN-00121 Helsinki Finland
IV-1-3	Telephone No.	358 9 618 821
IV-1-4	Facsimile No.	358 9 602 244
IV-1-5	e-mail	kolster@kolster.fi

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V	Designation of States	
V-1	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AP: GH GM KE LS MW SD SL SZ UG ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT</p> <p>EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT</p> <p>EP: AT BE CH&LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE and any other State which is a Contracting State of the European Patent Convention and of the PCT</p> <p>OA: BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT</p>
V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AE AL AM AT (patent and utility model)</p> <p>AU AZ BA BB BG BR BY CA CH&LI CN CR CU CZ (patent and utility model) DE (patent and utility model) DK (patent and utility model) DM EE (patent and utility model) ES FI (patent and utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK (patent and utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW</p>
V-5	Precautionary Designation Statement In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
V-6	Exclusion(s) from precautionary designations	NONE
VI-1	Priority claim of earlier national application	
VI-1-1	Filing date	01 October 1998 (01.10.1998)
VI-1-2	Number	982126
VI-1-3	Country	FI

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VI-2	Priority document request The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1	
VII-1	International Searching Authority Chosen	Swedish Patent Office (ISA/SE)	
VIII	Check list	number of sheets	electronic file(s) attached
VIII-1	Request	4	-
VIII-2	Description	12	-
VIII-3	Claims	4	-
VIII-4	Abstract	1	2980338p.txt
VIII-5	Drawings	3	-
VIII-7	TOTAL	24	
	Accompanying items	paper document(s) attached	electronic file(s) attached
VIII-8	Fee calculation sheet	✓	-
VIII-16	PCT-EASY diskette	-	diskette
VIII-17	Other (specified):	Copy of Official Action	-
VIII-18	Figure of the drawings which should accompany the abstract	1	
VIII-19	Language of filing of the international application	English	
IX-1	Signature of applicant or agent		
IX-1-1	Name	KOLSTER OY AB	Leo Lehtonen

FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	01 OCT 1999	(01 -10- 1999)
10-2	Drawings:		
10-2-1	Received		
10-2-2	Not received		
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application		
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)		
10-5	International Searching Authority	ISA/SE	
10-6	Transmittal of search copy delayed until search fee is paid		

FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 05 DEC 2000

WIPO PCT

Applicant's or agent's file reference 2980338 pc/su	FOR FURTHER ACTION		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/FI99/00813	International filing date (day/month/year) 01-10-1999	Priority date (day/month/year) 01-10-1998	
International Patent Classification (IPC) or national classification and IPC ₇ H04Q 7/20, H04Q 7/32, H04Q 7/36			
Applicant NOKIA NETWORKS OY et al			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☒ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 06.04.2000	Date of completion of this report 06.11.2000
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. 08-667 72 88	Authorized officer Jerry Vennerholm /itw Telephone No. 08-782 25 00

Form PCT/IPEA/409 (cover sheet) (January 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/FI99/00813

I. Basis of the report

1. With regard to the **elements** of the international application:*

☒ the international application as originally filed

☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement) under article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheet/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2 (c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI99/00813

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	<u>1-10</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-10</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-10</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The claimed invention relates to home area determination for subscriber terminal in cellular radio system. After receiving a location updating message from a subscriber terminal, a command is transmitted to the subscriber terminal to transmit the measurement result stored in its memory. Base stations with greatest signal strengths are identified based on the measurement results. The home area for the subscriber terminal is determined such that it includes one of the identified base stations.

Documents cited in the International Search Report:

D1	WO, A2, 9838819
D2	US, A, 5666662
D3	US, A, 5732354
D4	US, A, 5613205
D5	WO, A1, 9713387
D6	US, A, 5568153
D7	EP, A1, 0666700
D8	WO, A1, 9911085

Documents D5-D7 define the general state of the art and are not considered to be of particular relevance.

Document D8, categorised in the International Search Report as P,X is re-evaluated to P,A.

... / ...

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: V

Document D1 relates to a method of allocating a home cell to a subscriber station of a cellular radio system. When a new user is added to the system, the user is permitted a degree of mobility over nearby cells. Calls by or to the user are monitored and a record is kept of the cells used. The radio cells, the subscriber station has utilized the most, are identified on the basis of the data stored in the record, and one of these cells is allocated as the home cell to the subscriber station.

Document D2 relates to a mobile terminal location determining method used in a mobile radio communication system. The method involves calculating respective distances from base stations receiving location signal to mobile terminal based on respective detected field strength values.

Document D3 relates to a method and apparatus for determining the location of a mobile telephone. Upon initiation of a location function by the mobile switching center, a location estimate of the mobile telephone is calculated by receiving signal strengths between the mobile telephone and a number of antennae. The distances between the mobile telephone and each of another number of antennae are calculated using the signal strength data and an estimated cell propagation characteristic value.

Document D4 relates to a method of locating mobile terminal in cellular telecommunications system. The method involves identifying a number of candidate handoff cells having sufficient signal strength to maintain a call with the mobile terminal.

None of the documents D1-D4 shows, according to the invention, a home area determination for a subscriber terminal in a radio system with the following: receiving a location updating message from the subscriber terminal; transmitting, after the message has been received, a command to the terminal to transmit signal strength measurements - between the terminal and different base stations - it has stored in the memory; receiving them; determining the home area such that it includes one of the base stations showing the greatest signal strengths. It is neither obvious for a person skilled in the art to obtain the invention as defined in the independent claims 1, 5, 8 and 9.

Accordingly, claims 1-10 do fulfil the requirements of novelty (N), inventive step (IS) and industrial applicability (IA).

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI99/00813

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO 9911085	04-03-99	21-08-98	22-08-97

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)

TENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2980338 pc/su	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FI99/00813	International filing date (day/month/year) 01-10-1999	Priority date (day/month/year) 01-10-19998
International Patent Classification (IPC) or national classification and IPC ₇ H04Q 7/20, H04Q 7/32, H04Q 7/36		
Applicant NOKIA NETWORKS OY et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

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- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☒ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 06.04.2000	Date of completion of this report 06.11.2000
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. 08-667 72 88	Authorized officer Jerry Vennerholm /itw Telephone No. 08-782 25 00

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI99/00813

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement) under article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

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- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheet/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2 (c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI99/00813

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	<u>1-10</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-10</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-10</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The claimed invention relates to home area determination for subscriber terminal in cellular radio system. After receiving a location updating message from a subscriber terminal, a command is transmitted to the subscriber terminal to transmit the measurement result stored in its memory. Base stations with greatest signal strengths are identified based on the measurement results. The home area for the subscriber terminal is determined such that it includes one of the identified base stations.

Documents cited in the International Search Report:

D1	WO, A2, 9838819
D2	US, A, 5666662
D3	US, A, 5732354
D4	US, A, 5613205
D5	WO, A1, 9713387
D6	US, A, 5568153
D7	EP, A1, 0666700
D8	WO, A1, 9911085

Documents D5-D7 define the general state of the art and are not considered to be of particular relevance.

Document D8, categorised in the International Search Report as P,X is re-evaluated to P,A.

... / ...

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: V

Document D1 relates to a method of allocating a home cell to a subscriber station of a cellular radio system. When a new user is added to the system, the user is permitted a degree of mobility over nearby cells. Calls by or to the user are monitored and a record is kept of the cells used. The radio cells, the subscriber station has utilized the most, are identified on the basis of the data stored in the record, and one of these cells is allocated as the home cell to the subscriber station.

Document D2 relates to a mobile terminal location determining method used in a mobile radio communication system. The method involves calculating respective distances from base stations receiving location signal to mobile terminal based on respective detected field strength values.

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Document D4 relates to a method of locating mobile terminal in cellular telecommunications system. The method involves identifying a number of candidate handoff cells having sufficient signal strength to maintain a call with the mobile terminal.

None of the documents D1-D4 shows, according to the invention, a home area determination for a subscriber terminal in a radio system with the following: receiving a location updating message from the subscriber terminal; transmitting, after the message has been received, a command to the terminal to transmit signal strength measurements - between the terminal and different base stations - it has stored in the memory; receiving them; determining the home area such that it includes one of the base stations showing the greatest signal strengths. It is neither obvious for a person skilled in the art to obtain the invention as defined in the independent claims 1, 5, 8 and 9.

Accordingly, claims 1-10 do fulfil the requirements of novelty (N), inventive step (IS) and industrial applicability (IA).

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI99/00813

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO 9911085	04-03-99	21-08-98	22-08-97

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure
(day/month/year)Date of written disclosure
referring to non-written disclosure
(day/month/year)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/FI 99/00813

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H04Q 7/22, H04Q 7/28, H04Q 7/32, H04Q 7/36
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) -

IPC7: H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 9838819 A2 (NOKIA TELECOMMUNICATIONS OY), 3 Sept 1998 (03.09.98), see the whole document --	1-10
X	US 5666662 A (T.SHIBUYA), 9 Sept 1997 (09.09.97), see the whole doc. --	1-10
X	US 5732354 A (A.MAC DONALD), 24 March 1998 (24.03.98), see the whole doc. --	1-10
X	US 5613205 A (D.DUFOUR), 18 March 1997 (18.03.97), see the whole doc. --	1-10

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents
 "A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier document but published on or after the international filing date
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
 "&" document member of the same patent family

Date of the actual completion of the international search

16 March 2000

Name and mailing address of the ISA/
 Swedish Patent Office
 Box 5055, S-102 42 STOCKHOLM
 Facsimile No. +46 8 666 02 86

Date of mailing of the international search report

22 -03- 2000

Authorized officer

Lars Jakobsson
 Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 99/00813

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 9911085 A1 (NOKIA MOBILE PHONES LTD.), 4 March 1999 (04.03.99), see the whole doc. --	1-10
A	WO 9713387 A1 (LENA LARSSON), 10 April 1997 (10.04.97) --	1-10
A	US 5568153 A (A.BELIVEAU), 22 October 1996 (22.10.96) --	1-10
A	EP 0666700 A1 (AT & T CORP.), 9 August 1995 (09.08.95) -- -----	1-10

INTERNATIONAL SEARCH REPORT
Information on patent family members

02/12/99

International application No.
PCT/FI 99/00813

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
WO	9838819	A2	03/09/98	AU	6217098 A	18/09/98
				FI	970792 A	26/08/98
US	5666662	A	09/09/97	GB	2280327 A,B	25/01/95
				GB	9414860 D	00/00/00
				JP	2833967 B	09/12/98
				JP	7038951 A	07/02/95
US	5732354	A	24/03/98	US	5724660 A	03/03/98
US	5613205	A	18/03/97	AU	5291396 A	16/10/96
				BR	9607916 A	09/06/98
				CA	2216939 A	03/10/96
				CN	1185267 A	17/06/98
				EP	0872143 A	21/10/98
				JP	11502685 T	02/03/99
				NO	974489 A	27/11/97
				PL	322551 A	02/02/98
				WO	9631076 A	03/10/96
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